B. Amendments to the Claims:

Please replace the pending claims with the following:

- 1. (previously amended) A method for transplantation of at least about 500,000 mitogenic growth factor-responsive neural stem cells capable of differentiating into neurons, oligodendrocytes, or astrocytes to the brain, wherein the cells
 - (a) are transplanted to a first locus of the brain of a living host subject;
- (b) migrate *in vivo* after implantation from the first locus to other anatomic sites for integration within the nervous system of the host subject following infusion of a mitogenic growth factor that does not induce differentiation of the neural stem cells at a second locus of the brain of said host subject;
- (c) integrate *in situ* after implantation into the parenchymal tissues at a local anatomic site in the host subject; and
- (d) differentiate *in situ* after integration into a cell selected from the group consisting of neurons, oligodendrocytes, and astrocytes

wherein the transplanted neural stem cells retain their *in vivo* responsiveness to the mitogenic growth factor.

- 2. (currently amended) The method of claim 1, wherein said neural stem cells comprise are mammalian embryonic progenitor neural stem cells.
- 3. (previously amended) The method of claim 1, wherein said first locus is in the striatum of the brain and wherein said second locus is in the lateral ventricle of the brain.
- 4. (previously amended) The method of claim 1, wherein the *in vivo* migration occurs towards said second locus.
- 5. (canceled)

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6. (previously amended) The method of claim 1, wherein said neural stem cells are cultured in media comprising the mitogenic growth factor prior to transplantation.

7-12. (canceled)

- 13. (previously added) The method of claim 6, wherein said culture is a suspension culture.
- 14. (previously added) The method of claim 6, wherein said culture is an adherent culture.